TCT-158

Clopidogrel Alone is Not Sufficient to Prevent Stent Thrombosis in Diabetic Patients Requiring Warfarin.

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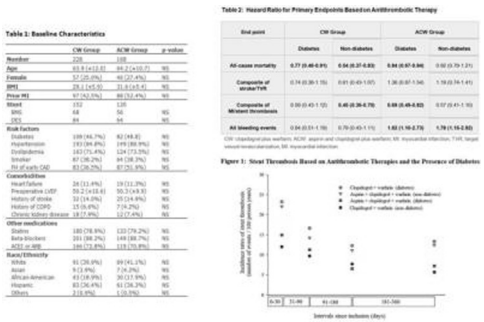
Background: Triple therapy with ASA, clopidogrel and warfarin (ACW) is associated with increased bleeding, but there is no data that evaluates whether clopidogrel and warfarin without ASA (CW) is sufficient in preventing stent thrombosis (ST). This study tested whether omitting ASA in patients on warfarin and clopidogrel who received either BMS or DES was effective and decreased bleeding.
Methods: 396 consecutive patients undergoing PCI at a single urban center were enrolled. All were discharged on clopidogrel 75 mg. Patients already on warfarin were continued. The choice to start ASA 325 mg was at the discretion of the cardiologist. Patients were followed for at least 1 year. The drug regimen selected was maintained for at least 1 month after BMS and 1 year after DES. Primary endpoints were all-cause mortality, MI, stroke, ST, target vessel revascularization. Secondary endpoints included bleeding events.
Results: Baseline characteristics are shown. The indication for warfarin was atrial fibrillation in 74% and mechanical valve 12%; the remainder included venous thromboembolism, severe systolic dysfunction, and the presence of LV thrombus. Multivariate analyses showed diabetes to be a statistically significant determinant of ST.



Conclusions: CW is not effective in preventing ST in diabetic patients requiring warfarin. ACW reduces the incidence of ST and lowers all-cause mortality but is associated with increased bleeding risk. Importantly, CW prevents ST in non-diabetic patients who require warfarin with less bleeding events, and may be the preferred antithrombotic therapy in this subgroup.

TCT-159

Platelet Reactivity Variation Following Ticagrelor Maintenance Dose Allows Noncompliance Diagnosis By Platelet Function Testing.

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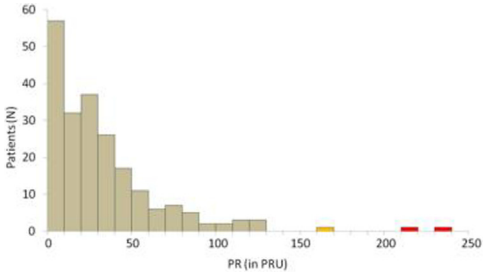
Background: Interindividual variability in platelet response to thienopyridines has been implicated as a reason making platelet function testing (PFT) unsuitable for diagnosing drug noncompliance. Because of variability in platelet response to ticagrelor might be more limited, we aimed to assess PFT usefulness to detect noncompliance to ticagrelor.
Methods: Over 15 months period all patients who were discharged on ticagrelor 90 mg bid maintenance dose were invited for clinical follow-up and PFT at 1 month post discharge. We studied platelet reactivity (PR) in 211 patients who were self-reported as compliant to therapy using the VerifyNow P2Y12 function assay (in PRU).
Results: There were 175(82.9 %) men, with a median (Q1-Q3) age of 59.0(51.0-69.0) years. PR frequency distribution is depicted in Figure. Apart from 3 patients, PR varied within a narrow range with quartile coefficient of dispersion = 0.65. The 3 patients were invited for ticagrelor administration under medical surveillance and re-PFT. Case 1 and 2 (in red) admitted not taking regularly ticagrelor at 1 month visit and at re-PTF had 5 PRU and 88 PRU, respectively, supporting the diagnosis of drug noncompliance. Case 3 was receiving phenytoin, whose co-administration may lead to a decrease in exposure and efficacy of ticagrelor and exhibited 149 PRU at re-PTF.
Conclusions: In patients under chronic ticagrelor treatment and in the absence of co-medication possibly leading to a decrease in its efficacy, an increased PR should strongly raise the suspicion of noncompliance. PFT may be a useful tool for noncompliance to ticagrelor detection.



TCT-160

In-Hospital Switching Of Oral P2Y12 Inhibitor Treatment In Patients With Acute Coronary Syndrome Undergoing Percutaneous Coronary Intervention: Prevalence, Predictors And Short-Term Outcome

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Background: P2Y12 inhibitor switching has appeared in clinical practice as a consequence of prasugrel and ticagrelor availability, apart from clopidogrel, for use in patients with acute coronary syndrome (ACS) undergoing percutaneous coronary intervention (PCI). In-hospital P2Y12 inhibitor switching has not been adequately studied.
Methods: In the context of the GReek AntiPlatelet REgistry (GRAPE) we assessed the prevalence, predictive factors and short-term outcome of in-hospital P2Y12 inhibior switching inACS patients undergoing PCI.
Results: We recruited 1434 patients. Switching occurred in 526(36.7%) patients of which in the form of clopidogrel to a novel agent, novel agent to clopidogrel and between prasugrel and ticagrelor in 480(91.2%), 26(5.0%) and 20(3.8%) patients, respectively. Age≥75 years, presentation to non PCI-capable hospital, history of stroke/transient ischemic attack, asthma/chronic obstructive pulmonary disease and regional trends emerged as predictive factors of switching to a novel agent. At combined in-hospital and one-month follow-up upgrading to a novel agent did not confer any ischemic or bleeding difference than novel agent constant administration, while it was accompanied by higher Bleeding Academic Research Consortium (BARC) type 1 (21.9%) and BARC any type (28.3%) bleeding events compared to only clopidogrel administration (8.7% and 11.9%, respectively), $p<0.001$ for both in propensity matched pairs analysis.
Conclusions: In a real-life experience with contemporary antiplatelet treatment in ACS patients undergoing PCI, in-hospital switching represents common clinical practice. Clinical factors and regional practice differences seem to affect this strategy's choice, while P2Y12 inhibitor upgrade may be associated with higher than clopidogrel risk of bleeding.

TCT-161

The administration of a loading dose has no additive effect on platelet aggregation during the switch from ongoing clopidogrel treatment to ticagrelor in patients with Acute Coronary Syndrome

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Background: Ticagrelor (TICA) was more efficient than clopidogrel (CLO) in preventing cardiovascular events after Acute Coronary Syndrome (ACS) in the PLATO trial. However, it was associated with a higher incidence of non-procedural bleedings. A TICA loading dose could be unnecessary in patients with ongoing CLO therapy. Aim of the present study was to verify whether the administration of a loading dose leads to an additional inhibition of platelet aggregation during the switch from ongoing CLO to TICA therapy.
Methods: Fifty patients with ACS and on CLO treatment were randomly assigned to a starting dose of TICA of 90mg or 180mg, on top of aspirin treatment. Platelet (PLT) aggregation was measured using Multiple Electrode Aggregometry (MEA) at 0, 2, 6,

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